CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

NPDES NO. CA0037842

ORDER NO. 82-35

REISSUANCE OF WATER DISCHARGE REQUIREMENTS FOR:

CITIES OF SAN JOSE AND SANTA CLARA
SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter Board), finds that:

1. The Cities of San Jose and Santa Clara (hereinafter discharger) by application dated December 30, 1981 has applied for renewal and amendment of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System. Order No. 77-107 currently permits this discharge.

2. The discharger presently discharges domestic and industrial wastes from its treatment plant at 37°, 26', 06" latitude and 121°, 57', 08" longitude through Artesian slough to waters of San Francisco Bay and its tributaries south of Dumbarton Bridge, all waters of the United States.

3. The Board, on October 1979 adopted Cease & Desist Order, No. 79-147 requiringdischarger to cease and desist from discharging wastes contrary to effluent and receiving water requirements of Order No. 77-107. Order No 79-147 was amended by Orders No. 80-20 and 82-23 and is still in effect.

4. Order No. 82-23 which amended Cease & Desist Order No. 79-147 contained an amended compliance time schedule for plant expansion and construction of intermediate facilities to bring the discharger into compliance with waste discharge requirements.

5. The Report of Waste Discharge describes the existing discharge as follows:

   Average Flow: 103 million gallons per day (mgd)
   Design Flow: 143 million gallons per day * (mgd)
   * (upon completion of all intermediate facilities)

   Discharger's current chemically assisted capacity with limited reliability is 132 mgd. Additional projects are underway with time schedules specified in Order No 82-23 to achieve the design capacity of 143 mgd. Even at such design capacity, the Board has concerns over process reliability which the discharger has yet to address. These concerns are addressed in detail in Cease & Desist Order No. 82-23.

6. A Water Quality Control Plan for the San Francisco Bay Basin was adopted by the Board on April 8, 1975. The Basin Plan contains water quality objectives and prohibitions for Artesian Slough and San Francisco Bay south of Dumbarton Bridge.

7. The beneficial uses of Artesian Slough and San Francisco Bay are:

   a. Recreation
   b. Fish migration and habitat
   c. Habitat and resting for water fowl and migratory birds
   d. Industrial water supply
   e. Esthetic enjoyment
   f. Navigation

8. The current discharge location is prohibited under the Basin Plan due to its location south of Dumbarton Bridge, lack of 10 to 1 initial dilution and discharge to a dead-end slough. However, public access to the actual discharge location is limited. The discharger is a member of the South Bay Dischargers Authority currently undergoing a Study to establish supporting data to request for Board consideration to allow continuous discharge in the existing location under Basin Plan exception criteria. Time Schedule Order No. 81-11 adopted by the Board allows for the study and delay in implementing the Basin Plan Prohibitions.

9. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code (CEQA) in accordance with Water Code Section 13389.

10. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

11. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Cities of San Jose and Santa Clara, San Jose/Santa Clara Water Pollution Control Plant, meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Prohibitions:

1. Discharge of waste to waters of San Francisco Bay south of Dumbarton Bridge or tributaries thereto is prohibited.

2. There shall be no bypass or overflow of untreated wastewater to waters of the State at the treatment plant or from the collection system under the control of the City of San Jose.

3. The average dry weather flow shall not exceed 132 mgd. Average shall be determined over three consecutive months each year. This capacity shall be increased to 138 mgd with the completion of filter backwash treatment system. Upon completion of all the Intermediate Facilities (Phase I, IIA and IIB) average dry weather flow shall not exceed 143 mgd. These capacity increases shall become effective only upon submission of documentation satisfactory to the Executive Officer demonstrating satisfactory operations and capacity.

B. Effluent Limitations:

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

Constituent	Units	30-Day Average	7-Day Average	Maximum Daily	Instantaneous Maximum
a. BOD	mg/l	10	-	20	-
b. Suspended Solids	mg/l	10	-	20	-
c. Oil & Grease	mg/l	5	-	10	-
d. Settleable Matter	ml/l-hr	0.1	-	-	0.2
e. Turbidity	JTU	-	-	-	10.0

2. Chlorine residual shall not exceed an instantaneous maximum of 0.0 mg/l.

3. The discharge shall not have pH of less than 6.5 nor greater than 8.5.

4. In any representative set of samples, the waste as discharged shall meet the following limit of quality.

TOXICITY:

The survival of test organisms acceptable to the Regional Board in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90% percentile value of not less than 70% survival for 10 consecutive samples.

5. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated.[a/]

Constituent	Unit of Measurment	6 month median	Daily Maximum
Arsenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.01	0.02
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0
Total Identifiable Chlorinated Hydrocarbons	mg/l[b/]	0.002	0.004

a / These limits are intended to be achieved through seconday treatment, source control and application of pretreatment standards.

b / Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated byphenyls, and other identifiable chlorinated hydrocarbons.

6. The arithmetic mean of values for BOD and Suspended Solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 85 percent removal).

7. At some point in the treatment process, the waste shall not exceed a median MPN of Coliform Organisms of 23/100 ml nor a maximum of 500/100 ml, as determined from the results of the previous consecutive five (5) days for which analysis have been completed.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place.

   a. Floating, suspended, or deposited macroscopic particulate matter, or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperture, turbidity, or apparent color beyond presenn natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of disssolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum.
c.	pH	Variation from natural ambient pH by more than 0.2 pH units. The Variation shall be increased to 0.5 pH units when the Basin Plan revision is approved by the Regional and State Boards.
d.	Un-ionized Ammonia as N	0.025 mg/l annual median 0.4 mg/l maximum

D. Land Disposal Requirements

1. The discharge of sewage sludge shall not cause waste material to be in any position where it is, or can be, carried from the Land Disposal Site and deposited in waters of the State.

2. The land Disposal site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.

3. The disposal of Group 1 material, as defined in the California Administrative Code, Article 3, Section 2520, in the Land Disposal Site is prohibited.

E. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 77-107 adopted by the Board on July 19, 1977, except that for the purpose of enforcing Boards cease and desist orders Nos. 79-147, 80-21 and 82-23, and for purposes of prosecution of the case of People v. San Jose., et al., San Mateo Superior Court No. 245235,Order No. 77-107 shall remain in full force and effect.

2. The discharger shall review and update annually it contigency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

3. The discharger shall comply with the self-monitoring program as ordered by the Executive Officer.

4. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977 except A.12 and B.3.

5. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

   Mass Emission Limit in lbs/day = Concentration limit in mg/l X 8.34 X Actual Flow in mgd Averaged Over the Time Interval to which the Limit Applies.

6. The discharger shall comply with all items of the "Standard Provisins and Reporting Requirements for a Pretreatment Program" contained in Board Order No. 8-44.

7. This Order expires on June 20, 1987, and the discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9, of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Adminstrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 16, 1982.

FRED H. DIERKER
Executive Officer

Attachments:

Standard Provisions, Reporting Requirements & Definitions
Self-Monitoring Program Part A & B
Standard Provisions, Reporting Requirement for a Pretreatment Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CITIES OF SAN JOSE/SANTA CLARA

SANTA CLARA COUNTY

NPDES NO. CA 0037842

ORDER NO. 82-35

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present; it may follow prechlorination, coarse bar screening, barminution, and grit removal, but must precede any other phase.

B. EFFLUENT

Station	Description
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D).
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.

C. RECIEVING WATERS

Station	Description
C-1	At a point, in the dredged channel, located within 100 feet from the point of discharge.
C-2	At a point, in Artesian Slough, located about 6000 feet north of the point of discharge (formerly known as C-2-3).
C-3	At a point, in Artesian Slough, located 8000 feet northerly from point of discharge (formerly known as C-2-5).
C-4	At a point, in Coyote Creek, at the S.P.R.R. crossing over Coyote Creek (formerly known as C-3-0).
C-5	At a point, in Coyote Creek, 5000 feet westerly from the S.P.R.R. crossing over Coyote Creek, and opposite the location of the old outfall from City of San Jose sewage treatment plant (formerly known as C-4-0).

Station	Description
C-6	At a point, in Coyote Creek, located approximately 200 feet south of the northerly shoreline, and approximately 2500 feet easterly from the point where the Pacific Gas and Electric Company power lines cross the northerly shore of Coyote Creek (formerly known as C-6-0).
C-7	At a point, in Alviso Slough, located 1000 feet southerly of the mouth of the Alviso Slough (formerly known as C-5-4).
C-8	At a point, in Coyote Creek, located within 50 feet of the first tower of Pacific Gas and Electric Company power line northerly of the southerly shoreline in the main channel or Coyote Creek (formerly known as C-7-0).
C-9	At a point in San Francisco Bay, located within 200 feet of the channel marker No. 5, at the mouth of Coyote Creek, in the main channel.
C-10	At a point in San Francisco Bay, located midway at the mouth of Mowry Slough.

D. LAND OBSERVATIONS

Station	Description
P-1 thru P-'n'	Located at the corners and midpoints of the perimeter fenceline surronding the treatment facilities. (A sketch showing the locations of these stations will accompany each report).
L-1 thru L-'n'	Located along the perimeter levee at equidistant intervals not to exceed 500 feet. (A sketch showing the locations of these stations will accompany each report).

E. OVERFLOWS AND BYPASSES

Station	Description
OV-1 thru OV-'n'	Bypass or overflows from manholes, pump stations or collection system.

NOTE: Initial self-monitoring program report include map and description of each known bypass or overflow location.

Reporting - Shall be submitted monthly and include date, time, and period of each overflow location.

II. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given as Table I.

"I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resoultion No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 82-35.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executivie Officer

Effective Date_____"

Attachment:
Table 1 (2 pages)
Map

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

ORDER NO. 82-35

CITY OF SAN JOSE

Sampling Station	A-001		E-001-D				(3) C		P&L		OV			
TYPE OF SAMPLE	C-24		G	Cont	C-24		G		Q		Q			
Flow Rate (mgd)	D													
BOD, 5-day, 20° C, or COD (mg/l & kg/day)	D 5/W				5/W									
Chlorine Residual & Dosage (mg/l & kg/day)			H or	Cont										
Settleable Matter (ml/1-hr. & cu. ft./day)			D											
Total Suspended Matter (mg/l & kg/day)	5/W				5/W									
Oil & Grease (mg/l & kg/day)	3/W				3/W									
Coliform (Total or Fecal) (MPN/100 ml) per req't			5/W				2/M							
Fish Toxicity, 96-hr. TL_{50} % Survival in undiluted waste					2W									
Ammonia Nitrogen (mg/l & kg/day)					3/W		2/M							
Nitrate Nitrogen (mg/l & kg/day)					2W		3M							
Nitrite Nitrogen (mg/l & kg/day)					2W		3M							
Total Organic Nitrogen (mg/l & kg/day)					2W		3M							
Total Phosphate (mg/l & kg/day)					2W		3M							
Turbidity (Jackson Turbidity Units)					W									
pH (units)			D				2/M							
Dissolved Oxygen (mg/l and % Saturation)			D				2/M							
Temperature (°C)			D				2/M							
Apparent Color (color units)					W		2/M							
Secchi Disc (inches)							2/M							
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)			D				2/M							
Arsenic (mg/l & kg/day)					Q									
Cadmium (mg/l & kg/day)					Q									
Chromium, Total (mg/l & kg/day)					Q									
Copper (mg/l & kg/day)					Q									
Cyanide (mg/l & kg/day)					Q									
Silver (mg/l & kg/day					Q									
Lead (mg/l & kg/day)					Q									

TABLE I (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

ORDER NO. 82-35

CITY OF SAN JOSE

Sampling Station	A-001		E-001-D				(3) C		P&L		OV		
TYPE OF SAMPLE	C-24		G	Cont	C-24		G		O		O		
Mercury (mg/l & kg/day)					Q								
Nickel (mg/l & kg/day)					Q								
Zinc (mg/l & kg/day)					Q								
PHENOLIC COMPOUNDS (mg/l & kg/day)					Q								
All Applicable Standard Observations			D				2/M		2/W		E		
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)					M								
Unionized NH_4 OH as N							2/M						

(1) Oil and grease sampling shall consist of 3 grab samples taken at 8-hour intervals during the sampling day, with each grab being collected in a glass container and analyzed separately, Results shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates occuring at the time of each grab sample.

(2) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD, total suspended solids, oil and grease (influent and effluent)
2. Grab sample for coliform (total and fecal), settleable matter, and chloring residual (continuous or every two hours).
3. Continuous monitoring of flow.

(3) Low slack water sampling.

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

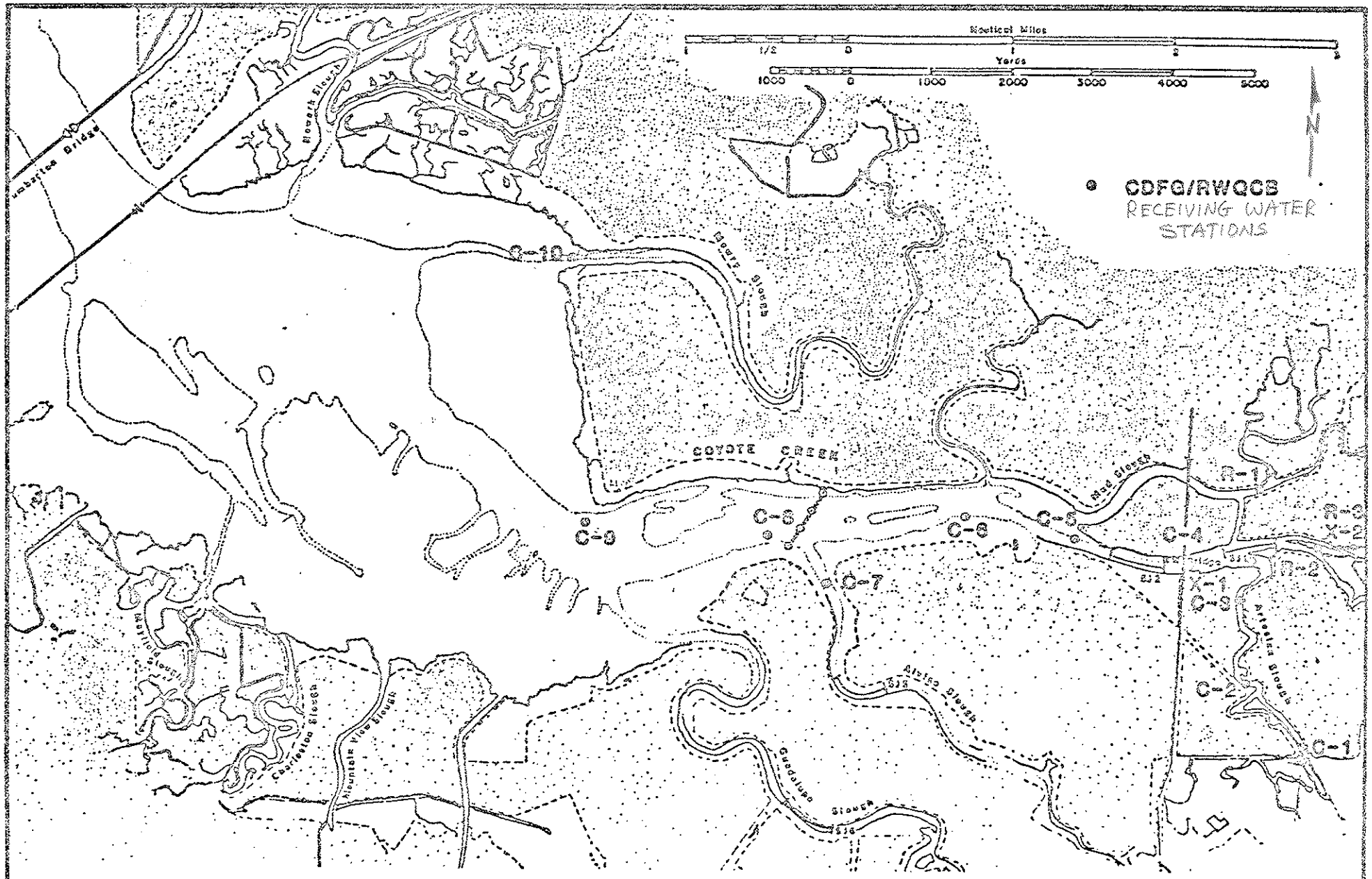
I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous



ER NO 82-35
37842
182

STATION LOCATION MAP

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